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EXAMINER	
BRANT, DMITRY	

ART UNIT	PAPER NUMBER
2655	8

DATE MAILED: 06/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/818,207	CASE ET AL.	
	Examiner	Art Unit	
	Dmitry Brant	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/25/04*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/25/04 have been fully considered but they are not persuasive.

2. As per claims 1 and 8, in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, while Hata et al. do not explicitly teach parsing text or pseudo words to determine and produce phrases, Syrdal et al. provides sufficient suggestion for using phrases by simply listing phrases as a possible option for result of concatenation. The motivation for using phrases instead of words is ample in the art: it is well-known to the ordinary practitioners of the art that certain phonetic or logical units happen often enough to be considered recurring and thus are processed as indivisible units (as opposed to collection of parts) for reasons of efficiency. Words themselves are good examples of logical units built using smaller sub-units (syllables). Many of concatenate text-to-speech system do not waste resources trying to construct words out of pre-recorded syllable sounds. Instead, these systems anticipate that only a certain number

of syllable combinations will occur (every language has a limited number of words) and use pre-recorded word samples for speech synthesis. If storage requirements are not a limitation, such systems would be faster because they perform less processing than systems that construct words from individual syllables.

Similarly, it would have been obvious to the one skilled in the art that phrases are just logical units constructed out of words. Therefore, if certain phrases occur often enough (such as "Have a good day"), then using pre-recorded versions of such phrases would improve system performance, since the system would not have to construct these phrases using individual words (and there would be fewer database searches for individual words). Therefore, the motivation for using (parsing and outputting) pre-recorded phrases is the same as the motivation for using pre-recorded words and such motivation would have been obvious to one with the ordinary skill in the art.

3. As per claim 10, applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 1, 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hata et al. in view of Syrdal et al. (6,601,030)

As per claim 1, Hata et al. discloses:

A method for converting text to concatenated voice by utilizing a digital voice library and a set of playback rules, the digital voice library including a plurality of speech items and a corresponding plurality of voice recordings wherein each speech item corresponds to at least one available voice recording, the method comprising:	
receiving text data	**(Col. 4, lines 58-63)**
expanding the text data to form a sequence of text and pseudo words	**(82, 84, 86, FIG. 2a)** and **(Col. 5, lines 6-15)**
converting the sequence of text and pseudo words into a sequence of speech items in accordance with the digital voice library	**(98, FIG. 2b)**
converting the sequence of speech items into a sequence of voice recordings in accordance with the set of playback rules	**(100, FIG. 2b)**
generating voice data based on the sequence of voice recordings by concatenating adjacent recordings in the sequence of voice recordings.	**(112, FIG. 2b)**

Hata et al. do not disclose "plurality of speech items that includes a plurality of phrases" and "parsing the sequence of text and pseudo words to determine any phrases."

Syrdal discloses parsing text and identifying phrases (Abstract, line 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hata et al. as taught in Syrdal et al., in order to identify phrases in text and check whether corresponding audio files exist in the database. In this situation, the use of pre-canned phrases would speed up the conversion of text to speech because it would not require additional processing to construct phrases out of individual words. (see explanation in examiner's response to arguments)

As per claim 9, Hata et al. do not disclose "parsing the sequence of text and pseudo words to determine any words".

Syrdal discloses parsing text and identifying words (Abstract, line 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hata et al. as taught in Syrdal et al., in order to identify words in text and check whether corresponding audio files exist in the database. In this situation, the use of pre-canned words would speed up the conversion of text to speech because it would not require additional processing to construct words out of individual syllables.

As per claim 10, Hata et al. do not disclose "parsing the sequence of text and pseudo words to determine any syllables".

Syrdal discloses parsing text and identifying sounds (Abstract, line 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hata et al. as taught in Syrdal et al., in order to identify sounds comprising unfamiliar words. In this case, the system would have to construct unfamiliar words that are not in the database using syllable concatenation. (The details of this process are described in Coorman et al. (6,665, 641) and Pearson et al. (6,144,939))

6. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hata et al. in view of Syrdal et al., and further in view of Holm et al. (5,850,629)

As per claims 2 and 3, Hata et al. and Syrdal et al. do not disclose searching the text data for an abbreviations/numerical suffixes and expanding any abbreviation contained in the text data into at least one pseudo word.

Holm et al. teaches expanding abbreviations (FIG. 10). Numerical suffixes are also a type of abbreviation used to write numerical sequences in a shorthand notation.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hata et al. and Syrdal et al. as taught by Holm et al., in order to properly pronounce text containing abbreviations such as "Mr." or "5th." and also to detect sentence boundaries.

As per claim 4, Hata et al. and Syrdal et al. do not disclose "searching the text data for a telephone number and expanding any telephone number contained in the text data into at least one pseudo word."

Holm et al. teaches expanding telephone numbers (Col. 10, lines 53-57)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hata et al. as taught in Holm et al., in order to properly pronounce text containing telephone numbers, since these numbers would be pronounced differently from regular number sequences.

As per claim 6, Hata et al. and Syrdal et al. do not disclose "searching the text data for an Internet mail address and expanding any Internet mail address contained in the text data into at least one pseudo word."

Holm et al. teaches expanding abbreviations and acronyms (FIG. 10), as well as ways to handle e-mail addresses (Col. 14, lines 15-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hata et al. as taught in Holm et al., in order to properly pronounce text containing abbreviations containing e-mail addresses and also detect sentence boundaries.

As per claim 7, Hata et al. and Syrdal et al. do not disclose "searching the text data for an Internet Universal Resource Locator and expanding any Internet Universal Resource Locator in the text data into at least one pseudo word."

Holm et al. teaches expanding abbreviations and acronyms (FIG. 10), as well as ways to handle e-mail addresses (Col. 14, lines 15-21). Similar to e-mail, web addresses in URL format also constitute special abbreviations containing special characters, such as HTML tags.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hata et al. as taught in Holm et al., in order to properly pronounce text containing web addresses and other HTML related information.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Brant whose telephone number is (703) 305-8954. The examiner can normally be reached on Mon. - Fri. (8:30am - 5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen Vo can be reached on (703) 308-6728. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Tech Center 2600 receptionist whose telephone number is (703) 305- 4700.

DB

5/19/04

Nguyen Vo
5-27-04

NGUYEN T. VO
PRIMARY EXAMINER